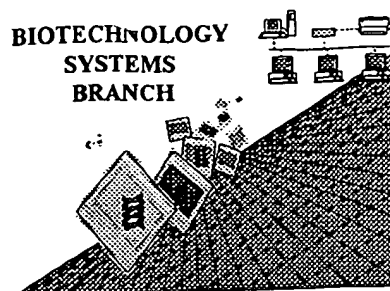


RAW SEQUENCE LISTING **ERROR REPORT**



The Biotechnology Systems Branch of the Scientific and Technical Information Center (STIC) detected errors when processing the following computer readable form:

Application Serial Number: 09/744,100
Source: Pct/09
Date Processed by STIC: 7/5/2001

THE ATTACHED PRINTOUT EXPLAINS DETECTED ERRORS.

PLEASE FORWARD THIS INFORMATION TO THE APPLICANT BY EITHER:

- 1) INCLUDING A COPY OF THIS PRINTOUT IN YOUR NEXT COMMUNICATION TO THE APPLICANT, WITH A NOTICE TO COMPLY or,
- 2) TELEPHONING APPLICANT AND FAXING A COPY OF THIS PRINTOUT, WITH A NOTICE TO COMPLY

FOR CRF SUBMISSION QUESTIONS, PLEASE CONTACT MARK SPENCER, 703-308-4212.

FOR SEQUENCE RULES INTERPRETATION, PLEASE CONTACT ROBERT WAX, 703-308-4216.

PATENTIN 2.1 e-mail help: patin21help@uspto.gov or phone 703-306-4119 (R. Wax)

PATENTIN 3.0 e-mail help: patin3help@uspto.gov or phone 703-306-4119 (R. Wax)

TO REDUCE ERRORED SEQUENCE LISTINGS, PLEASE USE THE CHECKER VERSION 3.0 PROGRAM, ACCESSIBLE THROUGH THE U.S. PATENT AND TRADEMARK OFFICE WEBSITE. SEE BELOW:

Checker Version 3.0

The Checker Version 3.0 application is a state-of-the-art Windows based software program employing a logical and intuitive user-interface to check whether a sequence listing is in compliance with format and content rules. Checker Version 3.0 works for sequence listings generated for the original version of 37 CFR §§1.821 – 1.825 effective October 1, 1990 (old rules) and the revised version (new rules) effective July 1, 1998 as well as World Intellectual Property Organization (WIPO) Standard ST.25.

Checker Version 3.0 replaces the previous DOS-based version of Checker, and is Y2K-compliant. Checker allows public users to check sequence listings in Computer Readable form (CRF) before submitting them to the United States Patent and Trademark Office (USPTO). Use of Checker prior to filing the sequence listing is expected to result in fewer errored sequence listings, thus saving time and money.

Checker Version 3.0 can be down loaded from the USPTO website at the following address:

<http://www.uspto.gov/web/offices/pac/checker>

Raw Sequence Listing Error Summary

ERROR DETECTED

SUGGESTED CORRECTION

SERIAL NUMBER: 09/744,100

ATTN: NEW RULES CASES: PLEASE DISREGARD ENGLISH "ALPHA" HEADERS, WHICH WERE INSERTED BY PTO SOFTWARE

- 1 Wrapped Nucleics
 Wrapped Aminos The number/text at the end of each line "wrapped" down to the next line. This may occur if your file was retrieved in a word processor after creating it. Please adjust your right margin to .3; this will prevent "wrapping."

- 2 Invalid Line Length The rules require that a line not exceed 72 characters in length. This includes white spaces.

- 3 Misaligned Amino
 Numbering The numbering under each 5th amino acid is misaligned. Do not use tab codes between numbers; use space characters, instead.

- 4 Non-ASCII The submitted file was not saved in ASCII(DOS) text, as required by the Sequence Rules. Please ensure your subsequent submission is saved in ASCII text.

- 5 Variable Length Sequence(s) contain n's or Xaa's representing more than one residue. Per Sequence Rules, each n or Xaa can only represent a single residue. Please present the maximum number of each residue having variable length and indicate in the <220>-<223> section that some may be missing.

- 6 PatentIn 2.0
 "bug" A "bug" in PatentIn version 2.0 has caused the <220>-<223> section to be missing from amino acid sequences(s) . Normally, PatentIn would automatically generate this section from the previously coded nucleic acid sequence. Please manually copy the relevant <220>-<223> section to the subsequent amino acid sequence. This applies to the mandatory <220>-<223> sections for Artificial or Unknown sequences.

- 7 Skipped Sequences
 (OLD RULES) Sequence(s) missing. If intentional, please insert the following lines for each skipped sequence:
 (2) INFORMATION FOR SEQ ID NO:X: (insert SEQ ID NO where "X" is shown)
 (i) SEQUENCE CHARACTERISTICS: (Do not insert any subheadings under this heading)
 (xi) SEQUENCE DESCRIPTION:SEQ ID NO:X: (insert SEQ ID NO where "X" is shown)
 This sequence is intentionally skipped

 Please also adjust the "(ii) NUMBER OF SEQUENCES:" response to include the skipped sequences.

- 8 Skipped Sequences
 (NEW RULES) Sequence(s) missing. If intentional, please insert the following lines for each skipped sequence.
 <210> sequence id number
 <400> sequence id number
 000

- 9 Use of n's or Xaa's
 (NEW RULES) Use of n's and/or Xaa's have been detected in the Sequence Listing.
 Per 1.823 of Sequence Rules, use of <220>-<223> is MANDATORY if n's or Xaa's are present.
 In <220> to <223> section, please explain location of n or Xaa, and which residue n or Xaa represents.

- 10 Invalid <213>
 Response Per 1.823 of Sequence Rules, the only valid <213> responses are: Unknown, Artificial Sequence, or scientific name (Genus/species). <220>-<223> section is required when <213> response is Unknown or is Artificial Sequence

- 11 Use of <220> Sequence(s) missing the <220> "Feature" and associated numeric identifiers and responses.
 Use of <220> to <223> is MANDATORY if <213> "Organism" response is "Artificial Sequence" or "Unknown." Please explain source of genetic material in <220> to <223> section.
 (See "Federal Register," 06/01/1998, Vol. 63, No. 104, pp. 29631-32) (Sec. 1.823 of Sequence Rules)

- 12 PatentIn 2.0
 "bug" Please do not use "Copy to Disk" function of PatentIn version 2.0. This causes a corrupted file, resulting in missing mandatory numeric identifiers and responses (as indicated on raw sequence listing). Instead, please use "File Manager" or any other manual means to copy file to floppy disk.

PCT

RAW SEQUENCE LISTING

DATE: 07/05/2001

PATENT APPLICATION: US/09/744,100

TIME: 15:42:39

Input Set : A:\BB1174.txt

Output Set: N:\CRF3\07032001\I744100.raw

Does Not Comply
Corrected Diskette Needed

3 <110> APPLICANT: Cahoon, Rebecca E.
 4 Gutteridge, Steven
 5 Lee, Jian Ming
 6 Rafalski, Antoni
 8 <120> TITLE OF INVENTION: Ornithine Biosynthesis Enzymes
 10 <130> FILE REFERENCE: BB-1174
 CK 12 <140> CURRENT APPLICATION NUMBER: US/09/744,100
 13 <141> CURRENT FILING DATE: 2001-01-18
 15 <150> PRIOR APPLICATION NUMBER: 60/093,209
 W--> 16 <151> PRIOR FILING DATE: July 17, 1998 1998-07-17 *use this date format*
 18 <160> NUMBER OF SEQ ID NOS: 12
 20 <170> SOFTWARE: Microsoft Office 97

ERRORED SEQUENCES

122 <210> SEQ ID NO: 3
 123 <211> LENGTH: 1186
 124 <212> TYPE: DNA
 125 <213> ORGANISM: Oryza sativa
 127 <400> SEQUENCE: 3
 128 gcacgagtac agcgccgcgcg ccgcccgcacat gctcctcgcg aagccccacc tctcctcctc 60
 129 ctctttcctc ccatccacgc ggggtgtctag ccccgctccg ggtcccaacc acgcaaagcc 120
 130 catcgccgcc tctccgcgcc ctgcagcgtg cctccgtctc gccgtcacat ccgcccgcgc 180
 131 gccggtgct tgcgcgcgcg aggcgcgcgcg ggcgctgagc cgcgtggatg tgctctcaga 240
 132 ggcgctcccc ttcattccagc gcttcaaggc gaagaccgtg gtggtgaagt acggcggcgc 300
 133 ggcgatgaag tcgcgcgcgc tccaggcttc agtgatccgc gacctggtcc tctctcgtg 360
 134 cgtcggcctc caccocgtgc tgcctccacg cggcgggccc gagatcaact cctggtgct 420
 135 ccgcgctcgc gtcgagccgc agttccggaa cggcctccgc gtcactgacg cgtcaacat 480
 136 ggaggtcgtc gagatggtgc tgcctcgcaa ggtcaacaaa gaactcctct cctcatcaa 540
 137 actcccgggg gggagcgcgc taagtctctg ttggaaggaa gctcgcctcc tcaacgagcg 600
 E--> 138 gccctccccg aatgaaaagg gcttccggtt tgcgcgcgcg gtctggcgcg tggacgccac 660
 139 cgtcctccac ccaatcatcg cctccggtca catcccggtc atcgccactg tgggcgcgca 720
 140 cgagaccggg caggcctaca acatcaacgc tgacacggcg gccggcgaga tcgccgcgc 780
 141 ggtcgcgcgc gagaagctgt tgcgtctcac agatgtgtct ggaattctgg ccgaccgtaa 840
 142 tgaccccggg agtctggtga aagagatcga cattgctggg gtgcggcaga tgggtggcga 900
 143 cgggcaggta gctggtggga tgataccgaa ggtggaatgc tgcgtgcgtg ccctcgcaca 960
 144 gggcgtgcac actgcaagca tcatcgatgg gcgtgtcccg cactcgttgc tgctcgagat 1020
 145 tctcacagat gagggcactg gcaactatgat cactggctga ggtgattcat ccgctcgtgg 1080
 146 tattctccgg tgctctctct ctcatactgt aatgtaattt gcatttgata tgctcctatga 1140
 147 ttgcaataag aattgtattc ctcaaaaaaa aaaaaaaa aaaaaa 1186

→ see
 item 9
 on Ena
 summary
 sheet

Use of n and/or Xaa has been detected in the Sequence Listing.
 Review the Sequence Listing to insure a corresponding
 explanation is presented in the <220> to <223> fields of
 each sequence using n or Xaa.

Use of n and/or Xaa has been detected in the Sequence Listing.
 Review the Sequence Listing to insure a corresponding
 explanation is presented in the <220> to <223> fields of
 each sequence using n or Xaa.

VERIFICATION SUMMARY

DATE: 07/05/2001

PATENT APPLICATION: US/09/744,100

TIME: 15:42:40

Input Set : A:\BB1174.txt

Output Set: N:\CRF3\07032001\I744100.raw

L:12 M:270 C: Current Application Number differs, Replaced Application Number
L:13 M:271 C: Current Filing Date differs, Replaced Current Filing Date
L:16 M:256 W: Invalid Numeric Header Field, Wrong Prior FILING DATE:YYYY-MM-DD
L:138 M:340 E: (46) "n" or "Xaa" used: Feature required, for SEQ ID#:3
L:195 M:258 W: Mandatory Feature missing, <223> not found for SEQ ID#:4
L:195 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:4
L:343 M:258 W: Mandatory Feature missing, <223> not found for SEQ ID#:7
L:343 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:7
L:344 M:258 W: Mandatory Feature missing, <223> not found for SEQ ID#:7
L:344 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:7
L:395 M:258 W: Mandatory Feature missing, <223> not found for SEQ ID#:8
L:395 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:8
L:398 M:258 W: Mandatory Feature missing, <223> not found for SEQ ID#:8
L:398 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:8
L:551 M:258 W: Mandatory Feature missing, <221> not found for SEQ ID#:12
L:551 M:258 W: Mandatory Feature missing, <222> not found for SEQ ID#:12
L:551 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:12
L:554 M:258 W: Mandatory Feature missing, <221> not found for SEQ ID#:12
L:554 M:258 W: Mandatory Feature missing, <222> not found for SEQ ID#:12
L:554 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:12
L:557 M:258 W: Mandatory Feature missing, <221> not found for SEQ ID#:12
L:557 M:258 W: Mandatory Feature missing, <222> not found for SEQ ID#:12
L:557 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:12
L:560 M:258 W: Mandatory Feature missing, <221> not found for SEQ ID#:12
L:560 M:258 W: Mandatory Feature missing, <222> not found for SEQ ID#:12
L:560 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:12
L:563 M:258 W: Mandatory Feature missing, <221> not found for SEQ ID#:12
L:563 M:258 W: Mandatory Feature missing, <222> not found for SEQ ID#:12
L:563 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:12
L:566 M:258 W: Mandatory Feature missing, <221> not found for SEQ ID#:12
L:566 M:258 W: Mandatory Feature missing, <222> not found for SEQ ID#:12
L:566 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:12
L:569 M:258 W: Mandatory Feature missing, <221> not found for SEQ ID#:12
L:569 M:258 W: Mandatory Feature missing, <222> not found for SEQ ID#:12
L:569 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:12
L:572 M:258 W: Mandatory Feature missing, <221> not found for SEQ ID#:12
L:572 M:258 W: Mandatory Feature missing, <222> not found for SEQ ID#:12
L:572 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:12
L:575 M:258 W: Mandatory Feature missing, <221> not found for SEQ ID#:12
L:575 M:258 W: Mandatory Feature missing, <222> not found for SEQ ID#:12
L:575 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:12
L:578 M:258 W: Mandatory Feature missing, <221> not found for SEQ ID#:12
L:578 M:258 W: Mandatory Feature missing, <222> not found for SEQ ID#:12
L:578 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:12
L:581 M:258 W: Mandatory Feature missing, <221> not found for SEQ ID#:12
L:581 M:258 W: Mandatory Feature missing, <222> not found for SEQ ID#:12
L:581 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:12
L:584 M:258 W: Mandatory Feature missing, <221> not found for SEQ ID#:12

VERIFICATION SUMMARY

DATE: 07/05/2001

PATENT APPLICATION: US/09/744,100

TIME: 15:42:40

Input Set : A:\BB1174.txt

Output Set: N:\CRF3\07032001\I744100.raw

L:584 M:258 W: Mandatory Feature missing, <222> not found for SEQ ID#:12
L:584 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:12
L:587 M:258 W: Mandatory Feature missing, <221> not found for SEQ ID#:12
L:587 M:258 W: Mandatory Feature missing, <222> not found for SEQ ID#:12
L:587 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:12
L:590 M:258 W: Mandatory Feature missing, <221> not found for SEQ ID#:12
L:590 M:258 W: Mandatory Feature missing, <222> not found for SEQ ID#:12
L:590 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:12
L:593 M:258 W: Mandatory Feature missing, <221> not found for SEQ ID#:12
L:593 M:258 W: Mandatory Feature missing, <222> not found for SEQ ID#:12
L:593 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:12
L:596 M:258 W: Mandatory Feature missing, <221> not found for SEQ ID#:12
L:596 M:258 W: Mandatory Feature missing, <222> not found for SEQ ID#:12
L:596 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:12
L:599 M:258 W: Mandatory Feature missing, <221> not found for SEQ ID#:12
L:599 M:258 W: Mandatory Feature missing, <222> not found for SEQ ID#:12
L:599 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:12
L:602 M:258 W: Mandatory Feature missing, <221> not found for SEQ ID#:12
L:602 M:258 W: Mandatory Feature missing, <222> not found for SEQ ID#:12
L:602 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:12
L:605 M:258 W: Mandatory Feature missing, <221> not found for SEQ ID#:12
L:605 M:258 W: Mandatory Feature missing, <222> not found for SEQ ID#:12
L:605 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:12
L:608 M:258 W: Mandatory Feature missing, <221> not found for SEQ ID#:12
L:608 M:258 W: Mandatory Feature missing, <222> not found for SEQ ID#:12
L:608 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:12
L:614 M:258 W: Mandatory Feature missing, <221> not found for SEQ ID#:12
L:614 M:258 W: Mandatory Feature missing, <222> not found for SEQ ID#:12
L:614 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:12